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ABSTRACT OF THE DISCLOSURE

Every segment of an input information signal is assigned to one of first signal points in a complex plane in response to a state of the segment. First signal-point information is generated which represents the assignment of the segment to one of the first signal points. Second signal-point information is generated in response to the first signal-point information. The first signal-point information and the second signal-point information are symmetrical with respect to a predetermined frequency having a relation of a predetermined integer ratio with an IDFT sampling frequency to cancel and nullify one of a real-part IDFT-resultant signal and an imaginary-part IDFT-resultant signal. IDFT is implemented in response to the first signal-point information and the second signal-point information to generate an IDFT-resultant OFDM signal having only one of a real-part component and an imaginary-part component.